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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 Missile Defense Agency | <b>Date:</b> February 2018 |
|---|----------------------------|

|   |   |
|---|---|
| <b>Appropriation/Budget Activity</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C <i>I Pacific Discriminating Radar</i> |
|---|---|

| COST (\$ in Millions)                                 | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | Cost To Complete | Total Cost |
|---|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element                                 | -           | 0.000   | 0.000   | 95.765       | -           | 95.765        | 164.167 | 497.630 | 604.085 | 402.890 | 0.000            | 1,764.537  |
| MD41: <i>Homeland Defense Radar - Hawaii (HDR-H)</i>  | -           | 0.000   | 0.000   | 62.221       | -           | 62.221        | 106.370 | 258.357 | 200.158 | 136.088 | 0.000            | 763.194    |
| MD51: <i>Homeland Defense Radar - Pacific (HDR-P)</i> | -           | 0.000   | 0.000   | 33.544       | -           | 33.544        | 57.797  | 239.273 | 403.927 | 266.802 | 0.000            | 1,001.343  |

**Program MDAP/MAIS Code:** 362

**Note**

Beginning in FY 2019 the Homeland Defense Radar - Hawaii (HDR-H) will be realigned to the Pacific Discriminating Radar Program Element 0604673C, Project MD41, from Ballistic Missile Defense Sensors Program Element 0603884C, Project MD41.

Beginning in FY 2019 the Budget Project (MD41) title will change from Pacific Radar to Homeland Defense Radar - Hawaii (HDR-H)

Beginning in FY 2019 funding is requested to establish the Homeland Defense Radar - Pacific (HDR-P) (Formerly known as Medium Range Discriminating Radar (MRDR)) Budget Project (MD51), this effort was previously funded in the Ballistic Missile Defense Sensors Program Element 0603884C.

**A. Mission Description and Budget Item Justification**

The Pacific Discriminating Radar Program Element is comprised of two new persistent discrimination sensors for the Ballistic Missile Defense System (BMDS) including the Homeland Defense Radar-Hawaii (HDR-H) and the Homeland Defense Radar-Pacific (HDR-P). Both sensors address NORTHCOM and PACOM operational requirements for a near term persistent solution against advancing threats and closes capability gaps throughout the Pacific region. Both sensors provide 24/7 tracking and discrimination capability against increasingly complex threats, improve capability of Ballistic Missile Defense (BMD) interceptors and provide for the defense of the Continental United States, Alaska and Hawaii. The radars will leverage development efforts from other sensor projects to enhance discrimination, tracking, and hit assessment to maximize interceptor usage. The HDR-H final testing, integration and delivery is planned for FY 2023 and the HDR-P will complete testing, integration and delivery in FY 2024.

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| <b>Appropriation/Budget Activity</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i> | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C I <i>Pacific Discriminating Radar</i> |
|---|---|

| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                       | 0.000          | 0.000          | 0.000               | -                  | 0.000                |
| Current President's Budget                        | 0.000          | 0.000          | 95.765              | -                  | 95.765               |
| Total Adjustments                                 | 0.000          | 0.000          | 95.765              | -                  | 95.765               |
| • Congressional General Reductions                | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Directed Reductions               | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Rescissions                       | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Adds                              | 0.000          | 0.000          |                     |                    |                      |
| • Congressional Directed Transfers                | 0.000          | 0.000          |                     |                    |                      |
| • Reprogrammings                                  | 0.000          | 0.000          |                     |                    |                      |
| • SBIR/STTR Transfer                              | 0.000          | 0.000          |                     |                    |                      |
| • FY 2017 Request for Additional Appropriations   | 0.000          | 0.000          | 0.000               | -                  | 0.000                |
| • Missile Defeat and Defense Enhancement          | 0.000          | 0.000          | 0.000               | -                  | 0.000                |
| • Other Adjustment                                | 0.000          | 0.000          | 95.765              | -                  | 95.765               |

**Change Summary Explanation**

The increase from PB18 to PB19 in FY 2019 reflects the realignment of the Homeland Defense Radar - Hawaii (HDR-H) from the Ballistic Missile Defense Sensors Program Element 0603884C and includes funding for the Homeland Defense Radar - Pacific (HDR-P), a new sensor within the BMDS.

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency |             |         |         |              |   |               |         |         |   | Date: February 2018 |                  |            |
|---|-------------|---------|---------|--------------|---|---------------|---------|---------|---|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>0400 / 4                                 |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |               |         |         | Project (Number/Name)<br>MD41 / Homeland Defense Radar - Hawaii (HDR-H) |                     |                  |            |
| COST (\$ in Millions)   | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO   | FY 2019 Total | FY 2020 | FY 2021 | FY 2022   | FY 2023             | Cost To Complete | Total Cost |
| MD41: Homeland Defense Radar - Hawaii (HDR-H)                             | -           | 0.000   | 0.000   | 62.221       | -   | 62.221        | 106.370 | 258.357 | 200.158   | 136.088             | 0.000            | 763.194    |
| Quantity of RDT&E Articles  | -           | -       | -       | -            | -   | -             | -       | -       | -   | -                   |                  |            |

**Note**

Beginning in FY 2018 funding is requested to establish the Pacific Radar Budget Project (MD41).

Beginning in FY 2019 the Budget Project (MD41) title will change from Pacific Radar to Homeland Defense Radar - Hawaii (HDR-H)

**A. Mission Description and Budget Item Justification**

The mission of the Homeland Defense Radar - Hawaii (HDR-H) program office is to define, develop, acquire, field, and sustain the radar as an element of the BMDS. The initial fielding is planned for FY 2023. The HDR-H provides persistent midcourse discrimination, precision tracking, and hit assessment to support the defense of Hawaii against long-range missile threats. The HDR-H is comprised of an equipment shelter, a Mission Control Facility (MCF) which supports radar operations, and supporting facilities and infrastructure. The radar prime contractor will be responsible for building and fielding the radar equipment with associated cooling system and the radar equipment shelter to include foundation.

The HDR-H will be integrated into the BMDS through the C2BMC system and will feature a scalable and open system architecture to mitigate evolving threats. The radar also supports additional mission areas including Space Situational Awareness.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

|  | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> |
|--|----------------|----------------|----------------|
| <b>Title:</b> Homeland Defense Radar - Hawaii (HDR-H)  | 0.000          | 0.000          | 62.221         |
| <b>Articles:</b>   | -              | -              | -              |
| <b>Description:</b> The HDR-H program, previously Pacific Radar, includes requirements development activities associated with systems engineering, hardware and software development, discrimination improvements, design reviews, testing, and Models and Simulation (M&S) efforts for radar development. Efforts include site activation and preparation of site infrastructure for construction activities. The program will develop and integrate C2BMC systems for HDR-H functionality. The program will develop and deliver radar software Build 1 and establish the Independent Verification and Validation (IV&V) lab for testing of operational software. The program includes purchase, manufacture, and test of long lead components. Specific and/or unique accomplishments to each FY are as follows: |                |                |                |
| <b>FY 2018 Plans:</b>  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency |   |   | <b>Date:</b> February 2018 |
| <b>Appropriation/Budget Activity</b><br>0400 / 4                                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C / <i>Pacific Discriminating Radar</i> | <b>Project (Number/Name)</b><br>MD41 / <i>Homeland Defense Radar - Hawaii (HDR-H)</i> |                            |

| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>   | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> |
|---|----------------|----------------|----------------|
| N/A   |                |                |                |
| <b><i>FY 2019 Plans:</i></b><br>-Initiate preparations for system-level Preliminary Design Review (PDR)<br>-Initiate Environmental Impact statements<br>-Complete System Requirements Review (SRR)<br>-Complete Integrated Baseline Review (IBR)  |                |                |                |
| <b><i>FY 2018 to FY 2019 Increase/Decrease Statement:</i></b><br>Increase in FY 2019 from FY 2018 reflects the Homeland Defense Radar - Hawaii (HDR-H) realignment to the Pacific Discriminating Radar Program Element 0604673C, Project MD41, from Ballistic Missile Defense Sensors Program Element 0603884C, Project MD41. |                |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>   | 0.000          | 0.000          | 62.221         |

**C. Other Program Funding Summary (\$ in Millions)**

| <u>Line Item</u>  | <u>FY 2017</u> | <u>FY 2018</u> | <u>FY 2019<br/>Base</u> | <u>FY 2019<br/>OCO</u> | <u>FY 2019<br/>Total</u> | <u>FY 2020</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>FY 2023</u> | <u>Cost To<br/>Complete</u> | <u>Total Cost</u> |
|---|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| • 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>                                  | 1,034.861      | 957.097        | 926.359                 | -                      | 926.359                  | 1,046.235      | 847.537        | 585.956        | 572.619        | Continuing                  | Continuing        |
| • 0603884C: <i>SENSORS MILCON</i>   | 166.670        | 0.000          | 174.000                 | -                      | 174.000                  | 0.000          | 0.000          | 0.000          | 0.000          | 0.000                       | 340.670           |
| • 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management &amp; Communication</i> | 465.433        | 454.862        | 475.168                 | -                      | 475.168                  | 515.239        | 494.873        | 492.119        | 515.529        | Continuing                  | Continuing        |
| • 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>   | 186.172        | 357.659        | 164.562                 | -                      | 164.562                  | 91.603         | 78.112         | 108.167        | 133.728        | Continuing                  | Continuing        |
| • 0604879C: <i>Ballistic Missile Defense Sensor Test</i>  | 81.376         | 101.839        | 81.001                  | -                      | 81.001                   | 77.654         | 68.026         | 101.091        | 81.903         | Continuing                  | Continuing        |
| • 31299903: <i>MILCON PLANNING and DESIGN</i>   | 15.000         | 0.000          | 14.184                  | -                      | 14.184                   | 49.482         | 38.424         | 8.009          | 8.160          | 0.000                       | 133.259           |

**Remarks**

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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency |  | Date: February 2018  |
| Appropriation/Budget Activity<br>0400 / 4                                 | R-1 Program Element (Number/Name)<br>PE 0604673C / <i>Pacific Discriminating Radar</i> | Project (Number/Name)<br>MD41 / <i>Homeland Defense Radar - Hawaii (HDR-H)</i> |

**D. Acquisition Strategy**

The HDR-H acquisition strategy was approved in December 2017. The HDR-H procurement will be the first delivery order of a multi-radar IDIQ contract that will include the full/open competitive award for the HDR-H. Additional radar delivery orders will be awarded based on competitively priced common hardware and software components plus site specific shelter and integration scope. MDA plans to award the HDR-H by 4Q FY 2018 and the prime contractor will manage, develop, build and integrate, test, and field the radar. The prime contract will include other fixed price and cost-reimbursable line items and options in order to properly balance acquisition costs and risks. Performance and cost incentives will be included to motivate contractor performance. The radar prime contractor will deliver a full technical data package, which will enable the government to effectively and affordably sustain the system. The HDR-H is expected to complete DD250 and initial fielding in FY 2023.

**E. Performance Metrics**

N/A

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency |                        |                                |             |         |            |   |            |              |            |   |            | Date: February 2018 |                  |            |                          |
|--|------------------------|--------------------------------|-------------|---------|------------|---|------------|--------------|------------|---|------------|---------------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>0400 / 4                                |                        |                                |             |         |            | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |            |              |            | Project (Number/Name)<br>MD41 / Homeland Defense Radar - Hawaii (HDR-H) |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                                     |                        |                                |             | FY 2017 |            | FY 2018   |            | FY 2019 Base |            | FY 2019 OCO   |            | FY 2019 Total       |                  |            |                          |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost  | Award Date | Cost         | Award Date | Cost  | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| Homeland Defense Radar - Hawaii (HDR-H) - Communications Integration     | SS/CPIF                | Lockheed Martin : AL           | 0.000       | 0.000   |            | 0.000   |            | 16.100       | Mar 2019   | -   |            | 16.100              | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Hawaii (HDR-H) - IV&V                           | MIPR                   | TBD : TBD                      | 0.000       | 0.000   |            | 0.000   |            | 3.145        | Feb 2019   | -   |            | 3.145               | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Hawaii (HDR-H) - Prime Contractor               | C/TBD                  | TBD : TBD                      | 0.000       | 0.000   |            | 0.000   |            | 33.976       | Jan 2019   | -   |            | 33.976              | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Hawaii (HDR-H) - Program Office                 | Various                | MDA : AL                       | 0.000       | 0.000   |            | 0.000   |            | 6.610        | Nov 2018   | -   |            | 6.610               | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Hawaii (HDR-H) - Site Activation & Studies      | C/TBD                  | TBD : TBD                      | 0.000       | 0.000   |            | 0.000   |            | 2.390        | Mar 2019   | -   |            | 2.390               | Continuing       | Continuing | Continuing               |
| Subtotal   |                        |                                | 0.000       | 0.000   |            | 0.000   |            | 62.221       |            | -   |            | 62.221              | Continuing       | Continuing | N/A                      |
| Remarks<br>N/A   |                        |                                |             |         |            |   |            |              |            |   |            |                     |                  |            |                          |
|  |                        |                                | Prior Years | FY 2017 |            | FY 2018   |            | FY 2019 Base |            | FY 2019 OCO   |            | FY 2019 Total       | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals  |                        |                                | 0.000       | 0.000   |            | 0.000   |            | 62.221       |            | -   |            | 62.221              | Continuing       | Continuing | N/A                      |
| Remarks<br>N/A   |                        |                                |             |         |            |   |            |              |            |   |            |                     |                  |            |                          |

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|---|--|--|--|-------------------------------|--|--|--|---|--|---------|--|------------------------------|---|---------|---|---|---|---------|---|---------|---|--|--|
| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         |   | Date: February 2018   |   |         |   |         |   |  |  |
| Appropriation/Budget Activity<br>0400 / 4                           |  |  |  |                               |  |  |  | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |  |         |  |                              |   |         |   | Project (Number/Name)<br>MD41 / Homeland Defense Radar - Hawaii (HDR-H) |   |         |   |         |   |  |  |
| Significant Event Complete ▲  |  |  |  | Milestone Decision Complete ★ |  |  |  | Element Test Complete ◆   |  |         |  | System Level Test Complete ● |   |         |   | Complete Activity ◆   |   |         |   |         |   |  |  |
| Significant Event Planned △   |  |  |  | Milestone Decision Planned ☆  |  |  |  | Element Test Planned ◇  |  |         |  | System Level Test Planned ○  |   |         |   | Planned Activity ◇  |   |         |   |         |   |  |  |
|   |  |  |  |                               |  |  |  | FY 2017   |  | FY 2018 |  | FY 2019                      |   | FY 2020 |   | FY 2021   |   | FY 2022 |   | FY 2023 |   |  |  |
| Homeland Defense Radar - Hawaii (HDR-H)                             |  |  |  |                               |  |  |  |   |  |         |  | ◇                            | ◇ | ◇       | ◇ | ◇   | ◇ | ◇       | ◇ | ◇       | ◇ |  |  |
| System Requirements Review (SRR)                                    |  |  |  |                               |  |  |  |   |  |         |  |                              |   | △       |   |   |   |         |   |         |   |  |  |
| Preliminary Design Review (PDR)                                     |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         | △ |   |   |         |   |         |   |  |  |
| Developmental Baseline Review (DBR)                                 |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         |   | △   |   |         |   |         |   |  |  |
| Critical Design Review (CDR)  |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         |   |   | △ |         |   |         |   |  |  |
| DD-250  |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         |   |   |   |         |   |         | △ |  |  |
| Initial fielding  |  |  |  |                               |  |  |  |   |  |         |  |                              |   |         |   |   |   |         |   |         | △ |  |  |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Missile Defense Agency |   |   | <b>Date:</b> February 2018 |
| <b>Appropriation/Budget Activity</b><br>0400 / 4                                | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C / <i>Pacific Discriminating Radar</i> | <b>Project (Number/Name)</b><br>MD41 / <i>Homeland Defense Radar - Hawaii (HDR-H)</i> |                            |

## Schedule Details

| Events                                  | Start   |      | End     |      |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |
| Homeland Defense Radar - Hawaii (HDR-H) | 3       | 2018 | 4       | 2023 |
| System Requirements Review (SRR)        | 3       | 2019 | 3       | 2019 |
| Preliminary Design Review (PDR)         | 3       | 2020 | 3       | 2020 |
| Developmental Baseline Review (DBR)     | 4       | 2020 | 4       | 2020 |
| Critical Design Review (CDR)            | 1       | 2021 | 1       | 2021 |
| DD-250                                  | 3       | 2023 | 3       | 2023 |
| Initial fielding                        | 4       | 2023 | 4       | 2023 |



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| Exhibit R-2A, RDT&E Project Justification: PB 2019 Missile Defense Agency |             |         |         |              |   |               |         |         |  | Date: February 2018 |                  |            |
|---|-------------|---------|---------|--------------|---|---------------|---------|---------|--|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>0400 / 4                                 |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |               |         |         | Project (Number/Name)<br>MD51 / Homeland Defense Radar - Pacific (HDR-P) |                     |                  |            |
| COST (\$ in Millions)   | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO   | FY 2019 Total | FY 2020 | FY 2021 | FY 2022  | FY 2023             | Cost To Complete | Total Cost |
| MD51: Homeland Defense Radar - Pacific (HDR-P)                            | -           | 0.000   | 0.000   | 33.544       | -   | 33.544        | 57.797  | 239.273 | 403.927  | 266.802             | 0.000            | 1,001.343  |
| Quantity of RDT&E Articles  | -           | -       | -       | -            | -   | -             | -       | -       | -  | -                   |                  |            |

**Note**

Beginning in FY 2019 funding is requested to establish the Homeland Defense Radar - Pacific (HDR-P) (Formerly known as Medium Range Discriminating Radar (MRDR)) Budget Project (MD51), this effort was previously funded in the Ballistic Missile Defense Sensors Program Element 0603884C.

**A. Mission Description and Budget Item Justification**

The mission of the Homeland Defense Radar - Pacific (HDR-P) program office is to define, develop, acquire, field, and sustain the radar as an element of the BMDS. Delivery of the HDR-P is planned for 4Q FY24 and it will provide persistent midcourse discrimination, precision tracking, and hit assessment to support the defense of the Homeland against long-range missile threats. The HDR-P is comprised of an equipment shelter housing multiple array faces, a Mission Control Facility (MCF) which supports radar operations, and supporting facilities and infrastructure. The radar prime contractor will be responsible for building and fielding the radar equipment with associated cooling system and the radar equipment shelter to include foundation. Siting surveys will be conducted to determine final recommended site.

The HDR-P will be integrated into the BMDS through the C2BMC system and will feature a scalable and open system architecture to mitigate evolving threats. The radar also supports additional mission areas including Space Situational Awareness.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

|   | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> |
|---|----------------|----------------|----------------|
| <b>Title:</b> Homeland Defense Radar - Pacific (HDR-P)  | 0.000          | 0.000          | 33.544         |
| <b>Articles:</b>  | -              | -              | -              |
| <b>Description:</b> The HDR-P program includes requirements development activities associated with systems engineering, hardware and software development, discrimination improvements, design reviews, testing, and Models and Simulation (M&S) efforts for radar development. Efforts include site activation and preparation of site infrastructure for construction activities. The program will develop and integrate C2BMC systems for HDR-P functionality. The program will develop and deliver radar software Build 1 and establish the Independent Verification and Validation (IV&V) lab for testing of operational software. The program includes purchase, manufacture, and test of long lead components. Specific and/or unique accomplishments to each FY are as follows: |                |                |                |
| <b>FY 2018 Plans:</b><br>N/A  |                |                |                |
| <b>FY 2019 Plans:</b><br>-Initiate prime contract delivery order award for a multi-faced radar  |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency  |                |                |                         |   |                          |                |                |  |                | <b>Date:</b> February 2018  |                   |                |
| <b>Appropriation/Budget Activity</b><br>0400 / 4  |                |                |                         | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C / <i>Pacific Discriminating Radar</i> |                          |                |                | <b>Project (Number/Name)</b><br>MD51 / <i>Homeland Defense Radar - Pacific (HDR-P)</i> |                |                             |                   |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>   |                |                |                         |   |                          |                |                |  |                | <b>FY 2017</b>              | <b>FY 2018</b>    | <b>FY 2019</b> |
| -Initiate preparation for the HDR-P System Requirements Review (SRR)<br>-Initiate preparation of the HDR-P Integrated Baseline Review (IBR)   |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b>  |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| Increase in FY 2019 from FY 2018 establishes the HDR-P Budget Project (MD51)  |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| <b>Accomplishments/Planned Programs Subtotals</b>   |                |                |                         |   |                          |                |                |  |                | 0.000                       | 0.000             | 33.544         |
| <b>C. Other Program Funding Summary (\$ in Millions)</b>  |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| <b>Line Item</b>  | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019<br/>Base</b> | <b>FY 2019<br/>OCO</b>  | <b>FY 2019<br/>Total</b> | <b>FY 2020</b> | <b>FY 2021</b> | <b>FY 2022</b>   | <b>FY 2023</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |                |
| • 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>  | 1,034.861      | 957.097        | 926.359                 | -   | 926.359                  | 1,046.235      | 847.537        | 585.956  | 572.619        | Continuing                  | Continuing        |                |
| • 0603884C: <i>SENSORS MILCON</i>   | 166.670        | 0.000          | 174.000                 | -   | 174.000                  | 0.000          | 0.000          | 0.000  | 0.000          | 0.000                       | 340.670           |                |
| • 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management &amp; Communication</i>   | 465.433        | 454.862        | 475.168                 | -   | 475.168                  | 515.239        | 494.873        | 492.119  | 515.529        | Continuing                  | Continuing        |                |
| • 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>   | 186.172        | 357.659        | 164.562                 | -   | 164.562                  | 91.603         | 78.112         | 108.167  | 133.728        | Continuing                  | Continuing        |                |
| • 0604879C: <i>Ballistic Missile Defense Sensor Test</i>  | 81.376         | 101.839        | 81.001                  | -   | 81.001                   | 77.654         | 68.026         | 101.091  | 81.903         | Continuing                  | Continuing        |                |
| • 31299903: <i>MILCON PLANNING and DESIGN</i>   | 15.000         | 0.000          | 14.184                  | -   | 14.184                   | 49.482         | 38.424         | 8.009  | 8.160          | 0.000                       | 133.259           |                |
| <b>Remarks</b>  |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| <b>D. Acquisition Strategy</b>  |                |                |                         |   |                          |                |                |  |                |                             |                   |                |
| The HDR-P acquisition strategy was approved in December 2017. The HDR-P procurement will be part of a multi-radar IDIQ contract that will include the full/open competitive award of the first delivery order for the HDR-H in FY18. MDA plans to award the HDR-P by 4Q FY 2019 and the prime contractor will manage, develop, build and integrate, test, and field the radar. The prime contract will include other fixed price and cost-reimbursable line items and options in order to properly balance acquisition costs and risks. Performance and cost incentives will be included to motivate contractor performance. The radar prime contractor will deliver a full technical data package, which will enable the government to effectively and affordably sustain the system. The HDR-P is expected to complete DD250 in FY 2024 and initial fielding in FY 2025 for BMDS integration and testing. |                |                |                         |   |                          |                |                |  |                |                             |                   |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Missile Defense Agency |   | <b>Date:</b> February 2018   |
| <b>Appropriation/Budget Activity</b><br>0400 / 4                                     | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C / <i>Pacific Discriminating Radar</i> | <b>Project (Number/Name)</b><br>MD51 / <i>Homeland Defense Radar - Pacific (HDR-P)</i> |
| <b><u>E. Performance Metrics</u></b><br>N/A  |   |  |

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|--|------------------------|--------------------------------|-------------|---------|------------|---|------------|--------------|------------|--|------------|---------------------|------------------|------------|--------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Missile Defense Agency |                        |                                |             |         |            |   |            |              |            |  |            | Date: February 2018 |                  |            |                          |
| Appropriation/Budget Activity<br>0400 / 4                                |                        |                                |             |         |            | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |            |              |            | Project (Number/Name)<br>MD51 / Homeland Defense Radar - Pacific (HDR-P) |            |                     |                  |            |                          |
| Product Development (\$ in Millions)                                     |                        |                                |             | FY 2017 |            | FY 2018   |            | FY 2019 Base |            | FY 2019 OCO  |            | FY 2019 Total       |                  |            |                          |
| Cost Category Item   | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost  | Award Date | Cost         | Award Date | Cost   | Award Date | Cost                | Cost To Complete | Total Cost | Target Value of Contract |
| Homeland Defense Radar - Pacific (HDR-P) - Communications Integration    | SS/CPIF                | Lockheed Martin : AL           | 0.000       | 0.000   |            | 0.000   |            | 5.618        | Mar 2019   | -  |            | 5.618               | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Pacific (HDR-P) - Prime Contract                | C/TBD                  | TBD : TBD                      | 0.000       | 0.000   |            | 0.000   |            | 17.000       | Jul 2019   | -  |            | 17.000              | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Pacific (HDR-P) - Program Office                | Various                | MDA : AL                       | 0.000       | 0.000   |            | 0.000   |            | 6.000        | Nov 2018   | -  |            | 6.000               | Continuing       | Continuing | Continuing               |
| Homeland Defense Radar - Pacific (HDR-P) - Site Activation & Studies     | C/TBD                  | TBD : TBD                      | 0.000       | 0.000   |            | 0.000   |            | 4.926        | Feb 2019   | -  |            | 4.926               | Continuing       | Continuing | Continuing               |
| Subtotal   |                        |                                | 0.000       | 0.000   |            | 0.000   |            | 33.544       |            | -  |            | 33.544              | Continuing       | Continuing | N/A                      |
| Remarks<br>N/A   |                        |                                |             |         |            |   |            |              |            |  |            |                     |                  |            |                          |
|  |                        |                                | Prior Years | FY 2017 |            | FY 2018   |            | FY 2019 Base |            | FY 2019 OCO  |            | FY 2019 Total       | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals  |                        |                                | 0.000       | 0.000   |            | 0.000   |            | 33.544       |            | -  |            | 33.544              | Continuing       | Continuing | N/A                      |
| Remarks<br>N/A   |                        |                                |             |         |            |   |            |              |            |  |            |                     |                  |            |                          |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2019 Missile Defense Agency |  |                               |  |                         |  |   |  |                     |  |  |  | Date: February 2018  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Appropriation/Budget Activity<br>0400 / 4                           |  |                               |  |                         |  | R-1 Program Element (Number/Name)<br>PE 0604673C / Pacific Discriminating Radar |  |                     |  |  |  | Project (Number/Name)<br>MD51 / Homeland Defense Radar - Pacific (HDR-P) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Significant Event Complete ▲  |  | Milestone Decision Complete ★ |  | Element Test Complete ◆ |  | System Level Test Complete ●  |  | Complete Activity ◆ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**UNCLASSIFIED**

|   |   |  |                            |
|---|---|--|----------------------------|
| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Missile Defense Agency |   |  | <b>Date:</b> February 2018 |
| <b>Appropriation/Budget Activity</b><br>0400 / 4                                | <b>R-1 Program Element (Number/Name)</b><br>PE 0604673C / <i>Pacific Discriminating Radar</i> | <b>Project (Number/Name)</b><br>MD51 / <i>Homeland Defense Radar - Pacific (HDR-P)</i> |                            |

Schedule Details

| Events   | Start   |      | End     |      |
|--|---------|------|---------|------|
|  | Quarter | Year | Quarter | Year |
| Homeland Defense Radar - Pacific (HDR-P) Development | 4       | 2019 | 4       | 2023 |
| System requirements Review (SRR)                     | 3       | 2020 | 3       | 2020 |
| Preliminary Design Review (PDR)                      | 2       | 2021 | 2       | 2021 |
| Developmental Baseline Review (DBR)                  | 3       | 2021 | 3       | 2021 |
| Critical Design Review (CDR)                         | 1       | 2022 | 1       | 2022 |